Digital CCD
camera

Microscope

Top fixture with parallelity adjustment

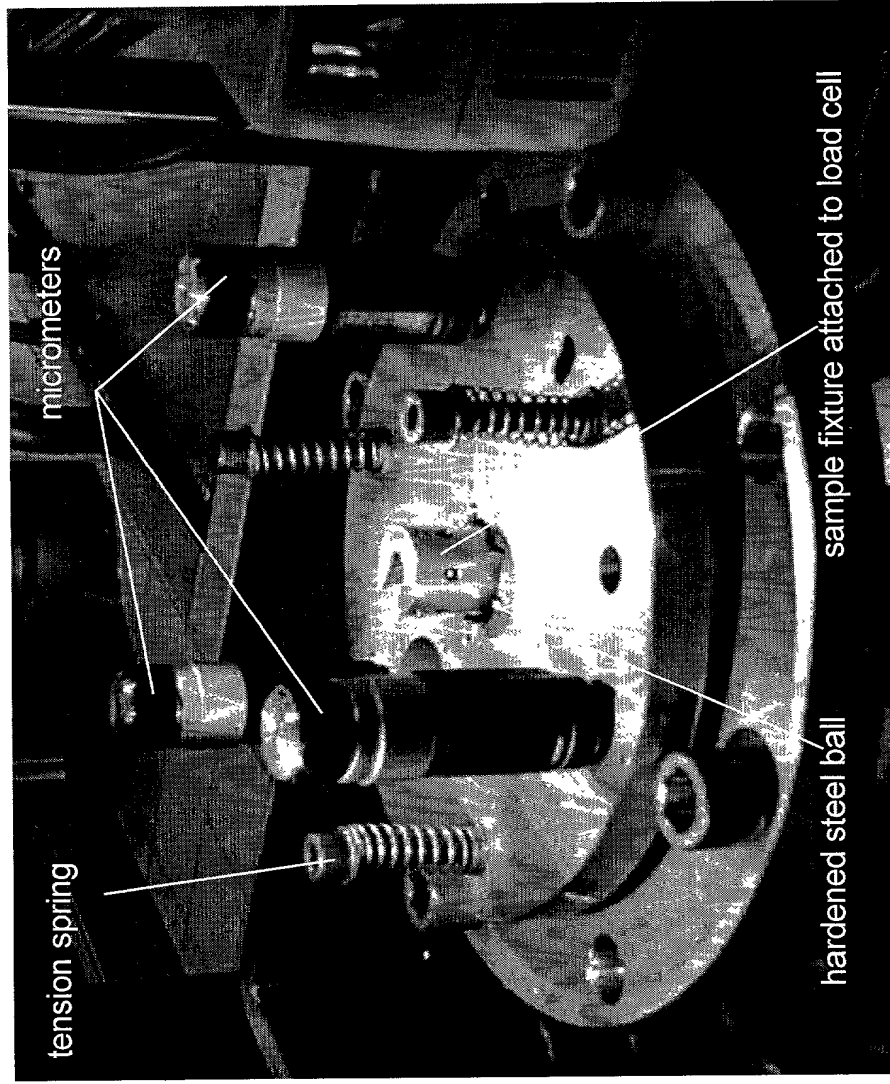
Moving plate of tensile testing machine

Displacement transducer

Load cell attached to lower sample fixture

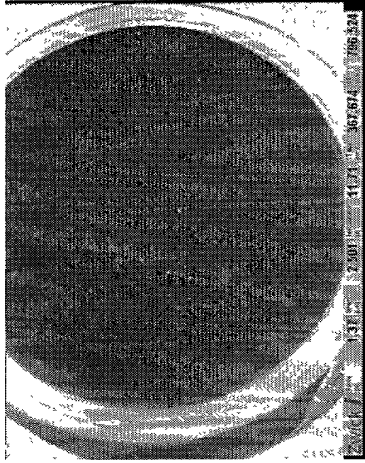
Fixed plate of tensile testing machine

Photograph 1: Set up for cavitation strength measurement

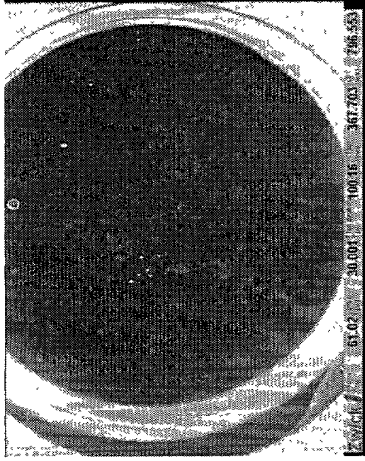


Photograph 2: Top plate with parallelism adjustment.

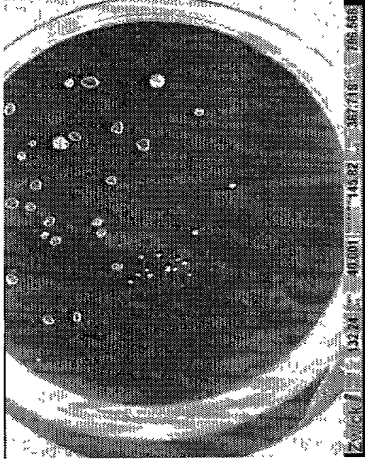
PRIMARY COATING A



no cavities at F=1.37 N

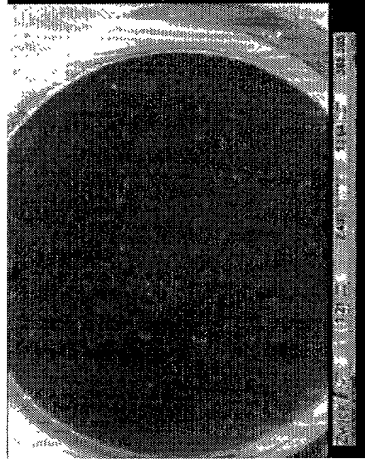


2 cavities at F=61.02 N

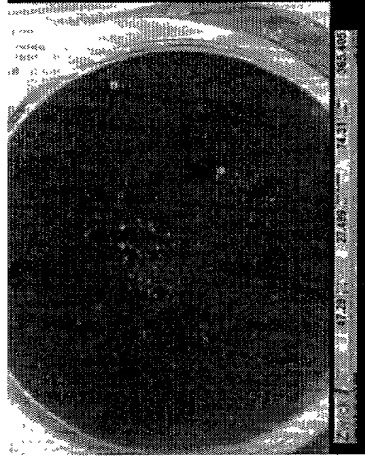


25 cavities at F=132.24 N

PRIMARY COATING B



no cavities at F=1.21 N

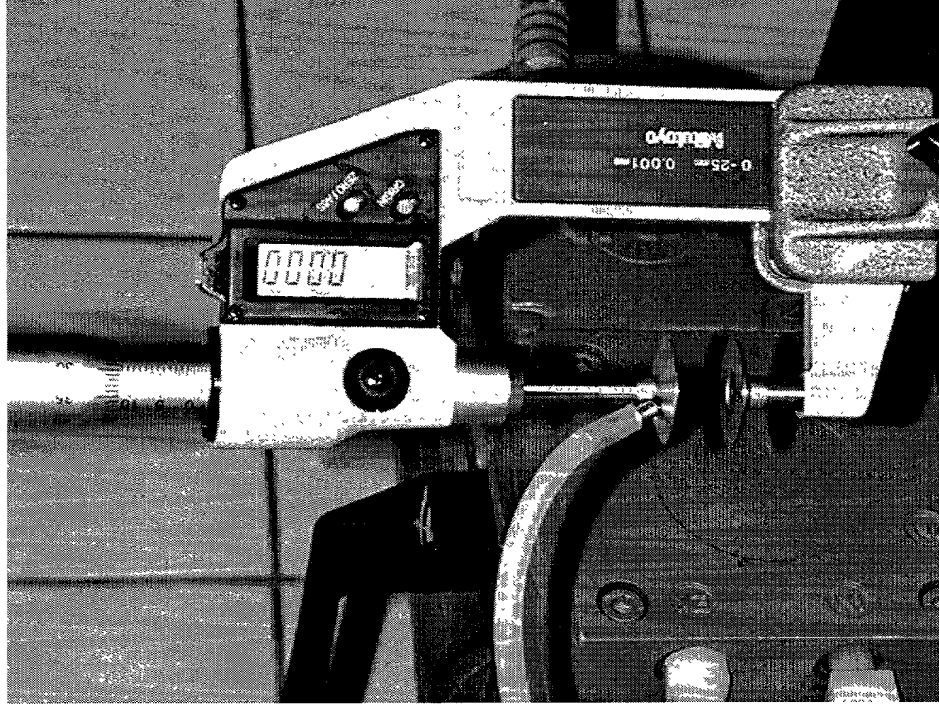


2 cavities at F=47.29 N



25 cavities at F=119.35 N

Photograph 3: samples of two primary coatings A and B with cavities; appearance of cavities as a function of the applied force



Photograph 4: Micrometer set-up in sample preparation for cavitation strength measurement

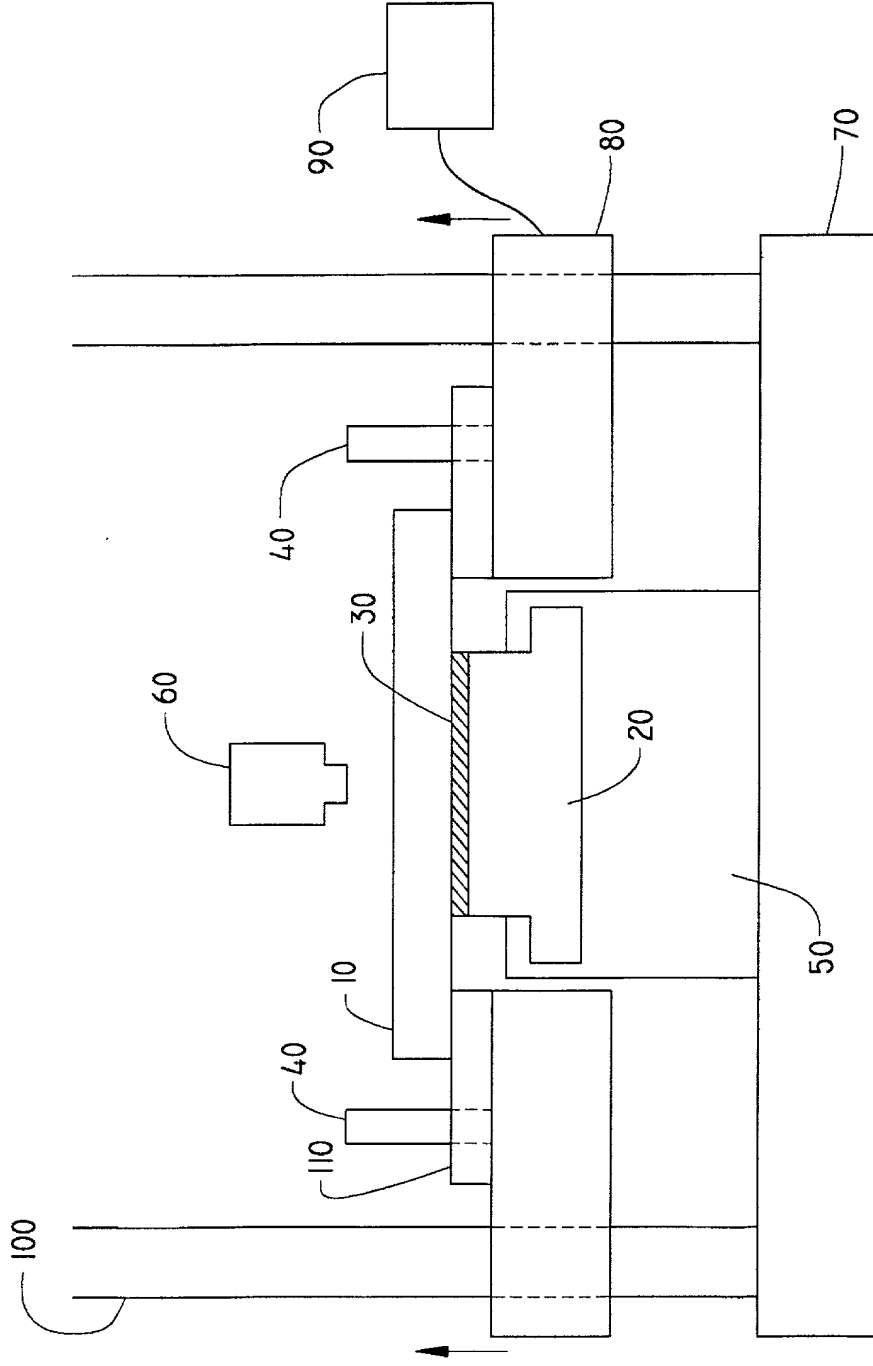


Figure 1: apparatus used for determining the cavitation strength of a sample.

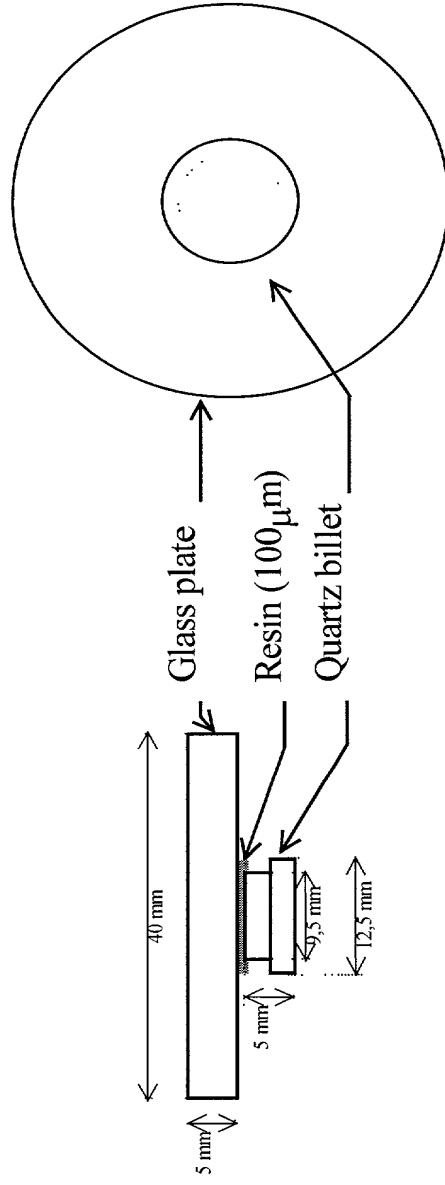


Figure 2: Sample geometry.

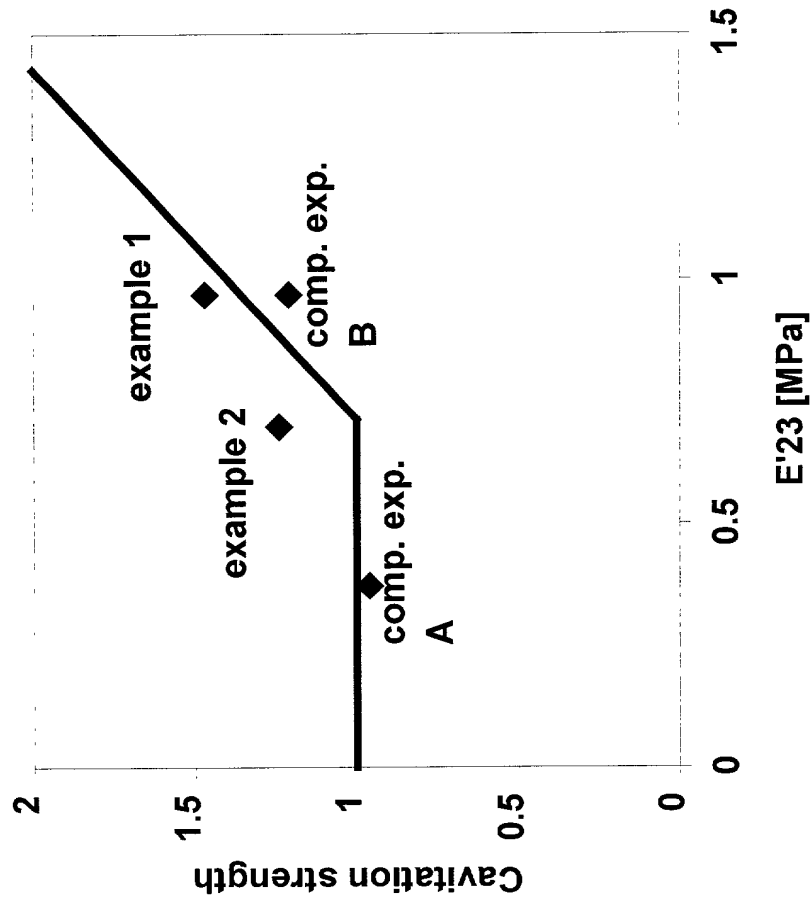


Figure 3: Cavitation strength at the tenth cavitation σ_{cav}^{10} as a function of E'_{23}

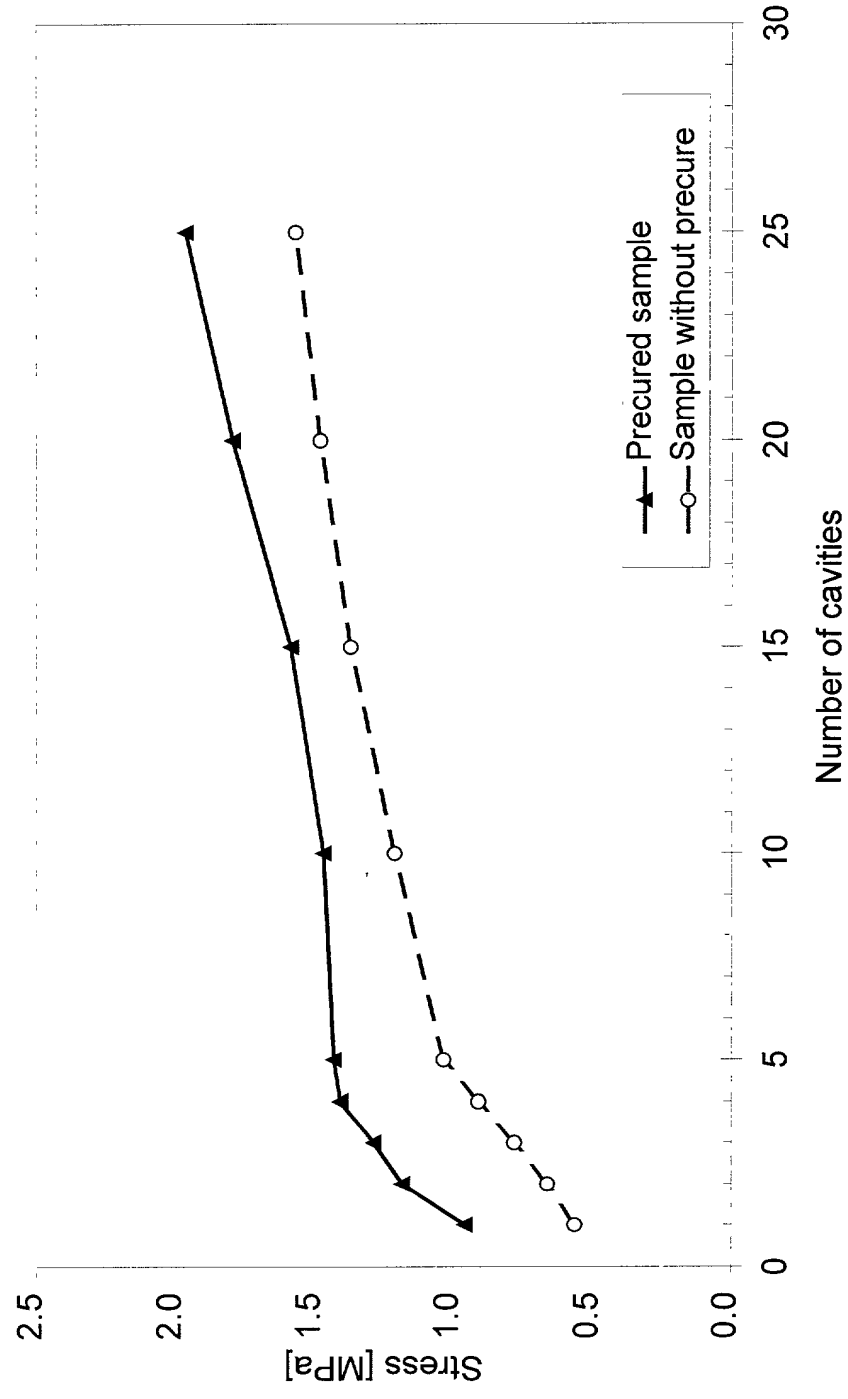


Figure 4: Cavitation strengths of a primary coating sample with and without precure

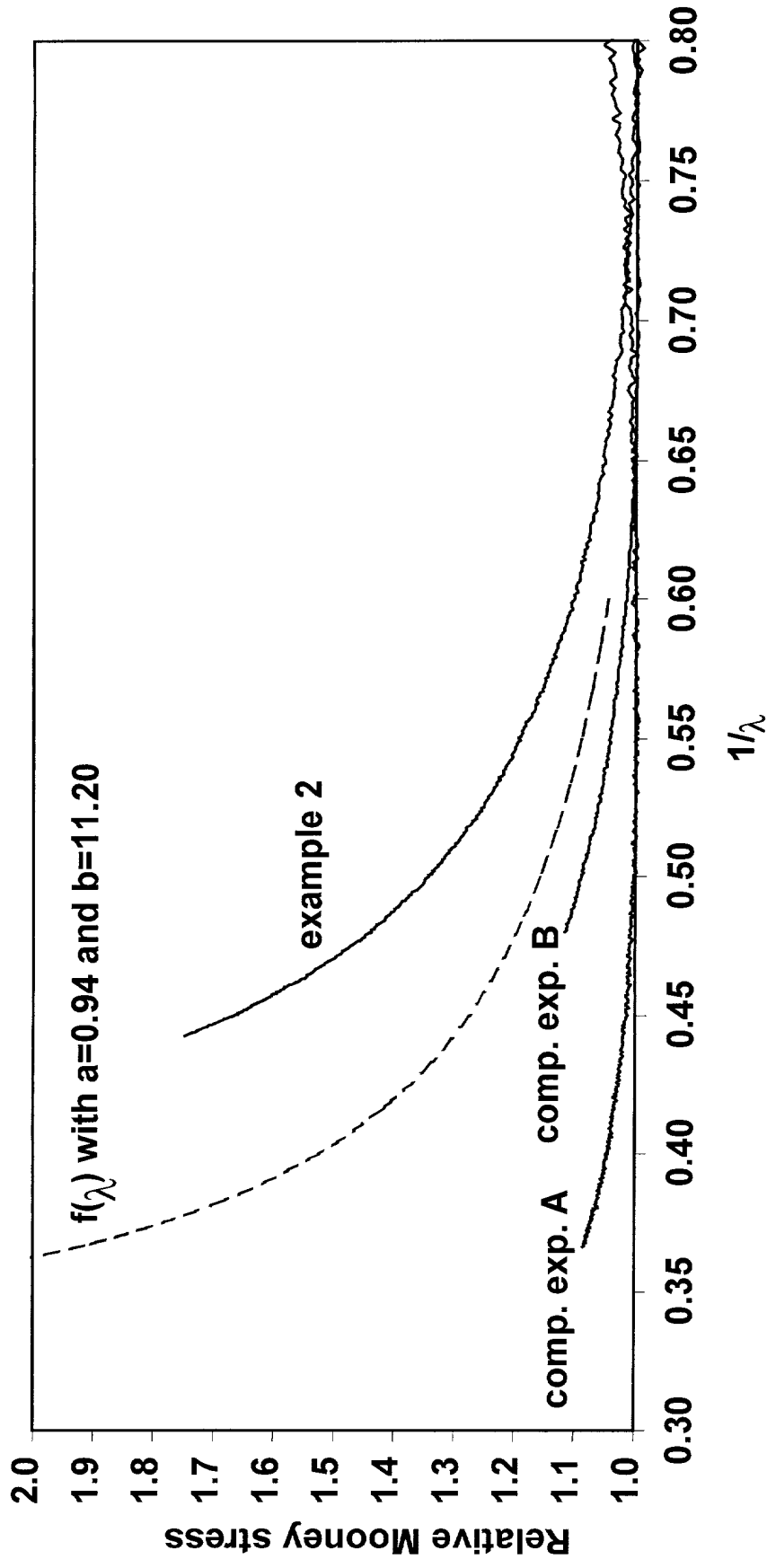


Figure 5: Relative Mooney plots of primary coatings